

**REMARKS**

Claims 1-12 have been examined. Claims 1-5 and 8-12 have been rejected under 35 U.S.C. § 103(a). Also, the Examiner has indicated that claim 6 and 7 contain allowable subject matter.

**I. Rejection under 35 U.S.C. § 103(a) in view of U.S. Patent No. 6,086,139 to Shimada et al. (“Shimada”)**

The Examiner has rejected claims 1-5 and 8-12 under 35 U.S.C. § 103(a) as being unpatentable over Shimada.

**A. Claim 1**

Applicant submits that claim 1 is patentable over the cited reference. For example, claim 1 recites that an ink supply port has an opening wall that is substantially perpendicular to a bottom wall of a container. The ink supply port is provided at a portion that protrudes from the bottom wall of the container.

The Examiner acknowledges that Shimada fails to disclose the above features, but contends that such features are, “a matter of a design expedient for an engineer.” In particular, the Examiner maintains that it would have been obvious to rearrange the location of the opening of the ink supply port for the purpose of accommodating with the shape of the holder.

Applicant respectfully traverses the Examiner’s assertion. For example, the Examiner’s statements regarding “the design expedient for an engineer”, suggests that the Examiner is trying to use a per se rule for determining obviousness. However, “[t]his method of analysis is founded on legal error because it substitutes supposed per se rules for the particularized inquiry required

by section 103. It necessarily produces erroneous results.” In re Ochiai, 71 F.3d 1565, 1570, 37 U.S.P.Q.2d (BNA) 1127, 1132 (Fed. Cir. 1995) In In re Ochiai, the Court provided a detailed clarification of what it perceived to be a frequent misunderstanding among examiners.

The use of per se rules, while undoubtedly less laborious than a searching comparison of the claimed invention--including all its limitations--with the teachings of the prior art, flouts section 103 and the fundamental case law applying it. Per se rules that eliminate the need for fact-specific analysis of claims and prior art may be administratively convenient for PTO examiners and the Board. Indeed, they have been sanctioned by the Board as well. But reliance on per se rules of obviousness is legally incorrect and must cease. Any such administrative convenience is simply inconsistent with section 103, which, according to Graham and its progeny, entitles an applicant to issuance of an otherwise proper patent unless the PTO establishes that the invention as claimed in the application is obvious over cited prior art, based on the specific comparison of that prior art with claim limitations. We once again hold today that our precedents do not establish any per se rules of obviousness, just as those precedents themselves expressly declined to create such rules. Any conflicts as may be perceived to exist derive from an impermissible effort to extract per se rules from decisions that disavow precisely such extraction. (Emphasis added).

In re Ochiai, 71 F.3d 1565, 1572, 37 U.S.P.Q.2D (BNA) 1127, 1134 (Fed. Cir. 1995).

Further, as noted to the Examiner during the February 25, 2004 Examiner Interview, the ink cartridge of Shimada is vertically loaded into the carriage (Fig. 3 and 5). On the other hand, in a non-limiting embodiment of the present invention, the claimed ink cartridge is for use in a front loaded recording apparatus, such that the cartridge can be horizontally loaded in the carriage (i.e. as shown in the non-limiting embodiment of Fig. 6A). As noted on pg. 1 of the present application, a front loaded apparatus allows devices to be stacked one on top of the other in order to reduce space. Further, as noted on pg. 3, when the ink supply passage extends parallel from the bottom wall of the ink cartridge (i.e. in order to have an ink supply port opening

substantially perpendicular to the bottom wall), the ink passage range is reduced, so that the size of the carriage is suppressed.

In addition, during the Examiner Interview, the undersigned noted to the Examiner that the ink cartridge and carriage of Shimada would need to be completely redesigned in order to accommodate a horizontally loaded cartridge. For example, the ink introducing pipes 72-76, as well as the ports 110a-e of Shimada would need to be re-configured for horizontal loading (Figs. 3 and 7). Such changes would not be cost effective or efficient since such recording apparatus is built to be vertically loaded. Further, Applicant submits that there is absolutely no motivation provided in Shimada for such modifications.

Based on the foregoing, Applicant submits that the claimed recitations of claim 1 are not merely an obvious design choice, or a design expedient for an engineer. Accordingly, Applicant submits that claim 1 is patentable over the cited reference, and respectfully requests the Examiner to reconsider and withdraw the rejection.

**B. Claim 2**

Applicant submits that claim 2 is patentable over the cited reference. For example, claim 2 recites an ink cartridge having a normally-closed valve system provided near an ink supply port.

During the Examiner Interview, the undersigned noted to the Examiner that she failed to specifically set forth where the Shimada reference discloses the claimed features. For example,

on pg. 3 of the Office Action, the Examiner recites the limitations of claim 2, but does not indicate where such features are disclosed in the reference.

Upon review, the Examiner maintains that the sealing means 116 of Shimada discloses the claimed “normally-closed valve system” (Figs. 6, 7). However, as shown in Fig. 7, the sealing means 116 do not appear to “close” the ink supply port. Rather, they appear to provide a sealing ring around the ink supply opening, such that the opening is sealed with the ink introducing pipes 72-76 when the cartridge is loaded onto the carriage. For example, as disclosed in Shimada, the sealing means 116 are fit to the ink supply ports 110a-e (col. 13, lines 1-2). Once the cartridge 70b is set to the carriage, the ink introducing pipes 72-76 are put in close contact with the fitting parts 116d of the sealing means 116, such that the sealing means 116 exercise their “highly sealing functions” (col. 13, lines 20-27).

Accordingly, Applicant submits that the sealing means 116 do not disclose a “normally closed valve system. Rather, the sealing means 116 merely disclose a sealing ring for close fitting of the ink ports with the ink pipes. Thus, Applicant submits that claim 2 is patentable over the cited reference and respectfully requests the Examiner to reconsider and withdraw the rejection.

### **C. Claims 3 and 4**

Since claims 3 and 4 are dependent upon claim 1, Applicant submits that such claims are patentable at least by virtue of their dependency.

**D. Claim 5**

Applicant submits that claim 5 is patentable over the cited reference. For example, claim 5 recites that an ink guide member has a horizontally protruding leading end.

During the Examiner Interview, the undersigned clarified that a non-limiting embodiment of the claimed ink guide member is disclosed in Fig. 5, element 38, of the present Application. In response, the Examiner indicated that the ink introducing pipes 72-76 of Shimada disclose such a feature. However, the undersigned noted that the leading ends of the pipes 72-76 are not arranged horizontally, as required by claim 5.

In view of the above, the Examiner acknowledged that Shimada does not appear to suggest such a feature. However, in order to clarify the claim, the Examiner suggested amending claim 5. The Examiner indicated that she will reconsider the rejection upon review of the amendment.

Accordingly, Applicant has amended claim 5, as suggested by the Examiner, and submits that such amendments are for clarification purposes, and are not made in view of the prior art. Applicant respectfully requests the Examiner to reconsider and withdraw the rejection.

**E. Claims 8-12**

Since claims 8-12 are dependent upon claim 1, Applicant submits that such claims are patentable at least by virtue of their dependency.

**II. Allowable Subject Matter**

As noted above, the Examiner has indicated that claims 6 and 7 contain allowable subject matter. Since Applicant has rewritten claim 6 into independent form, Applicant submits that claims 6 and 7 are now in condition for allowance.

**III. Newly Added Claim**

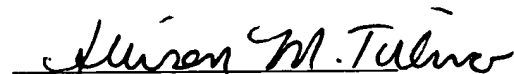
Applicant has added claim 13 to provide more varied protection for the present invention.

**IV. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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